

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A nanofiber comprised of numerous nanowires, comprising silicon which is oriented and is bundled in a same direction as said nanowires, provided with a space between nanowires, such that the nanofiber has a stem shaped cross-sectional configuration.
2. (Original) The nanofiber of claim 2, having a joint portion shaped like a constriction where a diameter is smaller.
3. (New) A nanofiber, comprising:
a plurality of silicon nanowires oriented along a single axis, a portion of the nanofiber forming a joint aligned with the axis, the joint having a diameter less than that of the portions of the nanofiber preceding and following the joint.
4. (New) The nanofiber of claim 3, wherein the nanowires are produced by heating silicon microcrystal grains placed on the surface of a silicon substrate.
5. (New) The nanofiber of claim 4, wherein the diameter of the nanofiber is approximately equivalent to the size of the microcrystal grain.
6. (New) The nanofiber of claim 3, wherein the nanowires are produced by heating silicon microcrystal grains placed on the surface of a silicon substrate, the grains and substrate having been coated by a layer of vapor deposited gold.
7. (New) The nanofiber of claim 4 or 6, wherein the heating takes place in a vacuum.
8. (New) The nanofiber of claim 7, wherein the atmosphere in the vacuum is initially air.
9. (New) The nanofiber of claim 4 or 6, wherein the joint is formed by interrupting the heating to allow a dissipating period, followed by further heating.